

# American Bee Journal



45th Year.

CHICAGO, ILL., FEB. 2, 1905.

No. 5.



SOME APIARIES LOCATED IN THE GREAT SOUTHWEST.  
(See page 84.)



# FOR 1905.

We are always studying how to improve our goods. That's why we are leaders. No detail is too small for improvement. No expenses are spared to experiment and build new machinery. There are many advantages in buying Root's Goods. You can't get good goods cheaper; you save freight and time, and you are always sure of the very latest in apiculture. Below are our improvements for 1905.

## Honey Extractors

The honey extractors of 1905 have steel stampings in many places where gray iron castings were used formerly. These stampings are so ribbed and braced that the construction of the baskets will be much stiffer than formerly with no possibility of any of the parts breaking.

## Wire Imbedder

Our new spur wire imbedder is a great improvement over the old one. Although it costs 20 cents and the old one sells for only 10 cents, it is 10 times better. It does very neat, pretty work and the special construction of the teeth with the groove makes it easy to follow the wire during the process of imbedding.

## Perforated Zinc

A complete new set of dies and press have been made during 1904 for turning out perforated zinc, so that our 1905 product will be even better than before.

## Smokers

Some minor improvements have been made in our smokers by which the blast will be increased and the general construction throughout stiffened. A very neat and strong brace is placed in such position that the legs supporting the cup or stove can not be twisted or bent out of shape without crushing the whole smoker.

## Fences

Some of our fences for the supers will be nailed as well as glued. This will enable the user to clean off the propolis by immersing them in boiling water, a fact which will be appreciated by many.

## Root's Automatic Extractor

We have got it at last. An automatic reversible honey-extractor that will reverse the pockets while in motion by simply pressing on a lever. The extractors are no larger than the Cowans, and reverse without bang or slam, provided the directions are followed. They are equipped with street-car band-brake, noiseless gearing, gearing on top of the reel out of the honey, and out of the way of putting in and removing the combs. We have the 4-frame size all ready for delivery. Six-frame, 8-frame, and 2-frame sizes will be ready shortly. Price will be only \$2.00 above the regular price for 2, 4, 6, and 8 frame Cowan extractors, respectively.

## Wax-Tube

The Van Deusen wax-tube fastener is made of one piece of brass tubing drawn down to a point. It is a much neater and better tool than the one sold last year.

## German Wax-Press

The German wax-press is now so improved that it has a threefold use. First, as a wax-rendering device and press to squeeze out slumgum clear of wax. Second, as a press for squeezing honey out of cappings, bits of burr-combs, chunk honey and the like. Third, as an uncapping can for uncapping combs preparatory to extracting. This last feature will prove invaluable because the cappings will drop into the basket, and when the uncapping is done the cappings can be squeezed until they are dry, the honey running out at the spout. Three machines for the price of one. And our price has been reduced to \$12.00.

## Bee-Veil

Our bee-veil for 1905 will have rubber cord sewed in the bottom edge so that the top as well as the bottom will be elastic. If the directions are followed the edge of the veil can be made bee-tight around the waist or coat, effectually protecting the wearer. We will still furnish veils with silk binding and when called for can supply them.

## Cover

The Excelsior cover will look about the same as before except that its construction will be simplified and strengthened, making it better in every way to withstand extremes of hot and dry weather. It will be used on all our hives including the Danzenbaker, as it has stood the test of many years, and for a general purpose cover we know of nothing better.

Ask for our Catalog. A postal brings it.

# THE A. I. ROOT COMPANY,

FACTORY AND EXECUTIVE OFFICE,

## MEDINA, OHIO.

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ESTABLISHED IN  
1861  
**AMERICAN**  
**BEE JOURNAL**  
THE OLDEST BEE-PAPER  
IN AMERICA

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

Published Weekly at \$1.00 a Year by George W. York & Co., 334 Dearborn St.

GEORGE W. YORK, Editor.

CHICAGO, ILL., FEB. 2, 1905.

Vol XLV.—No. 5.



## Editorial Notes and Comments

### "Bee-Keeping in the Southwest."

Over a year ago we had some correspondence with Prof. Louis H. Scholl, of Texas, concerning the preparation of a series of articles on bee-keeping in his section of our great country. Finally, about two months ago, he wrote us that he would now have the time to write them, and in this issue will be found the first one under a heading of his own selection, "Bee-Keeping in the Southwest". Our Southern readers especially will be interested in Prof. Scholl's articles, though they will be profitable for all.

### Punic or Tunisian Bees.

The character of these bees is a live topic nowadays among the correspondents of the American Bee-Keeper, the editor having received "numerous comments, aggregating nearly 100 pages of manuscript, together with lots of letters from those who have tested this race of bees". Whether they be good or ill-tempered, there can be no denying their ability to stir up ill temper among the disputants, for the editor says that much of the matter must be rejected "owing to its somewhat vindictive tone".

### Nominations for Officers of the National.

Wm. M. Whitney, of Wisconsin, does not favor the plan of selecting for candidates the two having the highest number of votes for nomination. He also says:

"It seems to me that as many States prominent in bee-keeping as possible should be represented on the Board of Directors, and it might be well for each State organization to indicate in some way the wish of the members in each locality; but voters to exercise their own free will in making choice of candidates for any office to be filled."

Perhaps it would be a good idea for State organizations to take a vote on nominations, provided the members are also members of the National, and yet it would be only a duplication if such members also sent in votes for nominations to the General Manager according to the present custom.

The idea that the nominees should, so far as possible, fairly represent the different sections of the country is based on that jewel "fair play". Some might say to increase the number of directors so that each State could be represented. But that would make the body a very un-

wieldy affair, say others. Indeed, some of the Board say the number is now too great for rapid expedition of business. There is perhaps never an actual meeting of the Board with all the members present, and the business is chiefly transacted by mail. Would it be an improvement to return to the smaller number of previous years? Could or could not three or five members do the business as satisfactorily as twelve or twenty? These, and other questions, are fair subjects for discussion.

One thing that makes it less important that many different sections should be separately represented is the fact that the interests of the different sections are generally identical. Protection against unjust litigation is the same in Maine as in California, and the same may be said of adulteration and other matters. However, we believe that it would be an advantage to have the members of the Board of Directors in as many different parts of the country as possible.

### Drone-Brood Exempt from Foul Brood.

Something which has perhaps not been heretofore mentioned on this side the water is given in the British Bee Journal, which says:

"It is a curious fact that dead drone-larvæ, even when taken from a hive affected with foul brood, never show the marked characteristics—either in color or ropiness—such as are seen in worker-brood from a diseased colony. It would almost seem as if the bacillus does not propagate or thrive in the former as in the worker-larvæ. Anyway, we can only record the fact as we have found it, after an experience probably as great as that of any one in this country."

### A Question-Box Convention Program.

That's the kind the Chicago-Northwestern is. Not a single paper was read at the last meeting. It was simply question after question, and one lively discussion following another. Such program is very easy to prepare, and when once "ignited", and the "flames" properly directed or controlled, it makes just the liveliest and warmest kind of a meeting of bee-keepers.

Such program has many advantages, and scarcely any disadvantages. The secretary is not overworked in preparing it before the meeting. Every one present has only to hand in any question that he desires to have discussed, when it is read, and the opinions thereon are forthcoming at once.

It also furnishes an ever fresh and sometimes surprising program. No one knows what is coming next until the next question is read by the presiding officer. Often the questions are so interesting that several members want to give their experiences in concert. Then the president or chairman needs only to say which person can have the



floor first, when the life of the shorthand reporter is saved—or at least he (the reporter) is saved from a useless attempt to write down a senseless jabbering.

We wish to commend the question-box program to other conventions of bee-keepers. We believe the Chicago-Northwestern is the only one that uses it practically exclusively. The old Northwestern that met annually in Chicago for so many years previous to 1891, never had any other kind of a program. It also never had but one president during its existence. And he was Dr. C. C. Miller, the original question-box-program man. He still helps as a member to make the Chicago meetings so interesting and practical.

Some members of the Chicago-Northwestern Association attribute its very successful meetings to its special kind of program. But it has no patent on it. Other conventions can copy if they so desire, without being in any danger of infringement proceedings.



## Miscellaneous News & Items

The British Bee-Keepers' Association has 332 members. For the year 1903 its income was \$2150.

Sir A. Conan Doyle as a Bee-Keeper.—It is reported in the British Bee Journal that the author of "Sherlock Holmes" is to cease writing after this year, retiring to some quiet country place where he will "go in for bee-keeping".

Mr. P. B. Ramer, secretary of the Fillmore Co., Minn., Bee-Keepers' Association, wrote us Jan. 20 as follows:

"We have just closed the third annual meeting of our Association, and each one excels the former ones in the interest taken. Our Association is proving to be a permanent good to the bee-keepers of this section. Those who fail to attend bee-keepers' meetings do not realize what they are losing."

The Paid-In-Advance Subscriber.—A country newspaper speaks of a man who always paid for his paper a year in advance. As a reward he was never sick in his life, never had a corn on his toes, or the toothache; his potatoes never rot, the frost never kills his pears, his wife never scolds, and he has succeeded in serving three terms on the school-board without being criticised.

We do not know whether such happy results would follow paid-up subscribers to the American Bee Journal or not, but it wouldn't do any harm for many others to try it.

The Michigan State Convention will be held at Grand Rapids, Feb. 23 and 24. We have received the following for publication from W. Z. Hutchinson, president of the Association:

### PRIZES ON HONEY AT THE COMING MICHIGAN CONVENTION.

As an encouragement to attend the coming State convention of bee-keepers at Grand Rapids, and, at the same time furnish some valuable object lessons to some of the members, the following prizes have been offered:

For the best 10 pounds of comb honey, quality and manner of putting up for market to be considered, A. G. Woodman, representing the G. B. Lewis Co., will give \$3.00 worth of supplies; for the second best lot, a Bingham brass smoke-engine worth \$1.75. Mr. Woodman also offers similar prizes for the best 10 pounds of extracted honey, quality and manner of putting up for market to be considered.

M. H. Hunt & Son offer \$3.00 worth of supplies for the

best 10 pounds of extracted honey, quality and manner of putting up for market to be considered; a Jumbo Corneil brass smoker as a second prize; and a Bingham honey-knife as a third prize.

The A. I. Root Co. offers a complete Danzenbaker hive nailed and painted, ready for use, value \$3.10, for the best 10 sections of honey produced in a Danzenbaker hive; for the second best lot, a copy of the "A B C of Bee-Culture", worth \$1.20; for the third best, one year's subscription to *Gleanings*, worth \$1.00.

In addition to the above, the Bee-Keepers' Review will give a year's subscription to the Review to every man who wins any of the other prizes.

It will be seen that a bee-keeper with a nice case of comb honey, or 10 pounds of fine extracted, might, considering the reduced rates on the railroad, come 100 miles and receive prizes enough to pay all of his expenses. Come and bring your honey. If you don't bring it you may be chagrined to see a poorer lot than yours take first prize.

It may be of interest, also, to know that the National Biscuit Co. will make a display of their goods that are made with honey.

All being well, we expect to be present at this convention, and hope to meet many friends of the American Bee Journal. Not having been invited to offer any prizes accounts for the omission of the American Bee Journal from the foregoing paragraphs.

Some Southwestern Apiaries are shown on the first page this week, the originals of which were kindly sent to us by Prof. Louis H. Scholl, who begins a series of articles this week on "Bee-Keeping in the Southwest". The following are brief descriptions of the pictures as noted on the back of each photograph:

1. M. A. Salazar's apiary on the Nueces River, La Salle County, opposite a beautiful lake. Catclaw, mesquite, guajilla, white-brush and others are the sources of honey.

2. Where fine honey is produced—mesquite, catclaw and guajilla. Bottom-boards not present in this yard. Hives on rims, and earth the floor. Works all right there. Dry, you know.

3. 180 colonies kept by W. B. Morse and wife on the "waheah" plains of southwest Texas, which brought in much cash.

4. Apiary of J. N. Long, of Frio Co., Tex., where Mr. Sbisá used to get his honey; 140 colonies owned by a man who makes his own hives and fixtures, and who has made some money out of the business.

5. Another apiary in southwest Texas. Just moved to the new location. Some 80 colonies, and the "rims" still lying on the ground, just taken off, with screws. Mesquite and persimmon trees in the yard, and other honey-plants.

6. 360 colonies in one yard—the most I ever saw in one place in Texas. On the banks of the Nueces. Thousands of acres of guajilla, mesquite, and cacti in the distance.

7. A southwest Texas apiary with mesquite and white-brush all around—honey-yielders—and the bees have only to go over the fence and fetch it into the hives.

A Very Successful Meeting of the Kansas State Bee-Keepers' Association was held in the State Capitol building at Topeka, Jan. 10 and 11. A bill was prepared which will be presented to the Legislature, asking for a law to appoint foul-brood inspectors for the different counties. The old officers were all unanimously elected as follows: President, Dr. G. Bohrer; vice-president, E. W. Dunham; secretary, O. A. Keene, of Topeka; and treasurer, J. J. Measer.

A Queen-Bee Free as a Premium.—We are now booking orders for untested Italian queens to be delivered in May or June. This is the premium offer: To a subscriber whose own subscription to the American Bee Journal is paid at least to the end of 1905, we will give an untested Italian queen for sending us one new subscription with \$1.00 for the Bee Journal a year. Now is a good time to get new subscribers. If you wish extra copies of the Bee Journal for use as samples, let us know how many you want and we will mail them to you. Address all orders to the office of the American Bee Journal.



## Contributed Special Articles

### No. 1.—Bee-Keeping in the Southwest.

BY PROF. LOUIS H. SCHOLL.

**B**EE-KEEPING in the Southwest differs very much, when taken as a whole, from Northern bee-keeping. Other methods and systems of management are employed. The methods of procedure in the beginning of the season are different from those practiced in the North, and so as to the outcome at the end of the season's work. All this is due to the difference in conditions, the change of climate, with entirely different seasons and another variety of honey-yielding flora. The seasons are not like those of the North; the winters are shorter and the summers longer, and there is quite a difference in the temperature.

#### THE LENGTH OF THE HONEY-SEASON.

The question has often been asked, as to how long the honey season lasts throughout the year in the Southwest; that is to say, from the time the bees begin to work on the earliest blooms until they stop working on the latest ones. To this my answer has often been, that it depends a good deal upon locality, but in my own locality at home (Brazos County), 13 months would be about right! This has, however, nearly stunned the questioner in every case; yet this is really true, for if we begin with the first appearance of the bloom of our mistletoe, which begins often about the first of December, lasting well into January, it is followed by many other flowers more or less all through the entire season. The last of these upon which the bees work, and which ends up the season, is cotton. This blooms from the latter part of June until frost, and often this does not come until in January. So I have seen bees work on cotton as late as that, and as they had begun in the months of December a year before, it can easily be figured out. In other words, the flow extended into three different years.

This, of course, does not occur every year, for sometimes the seasons are shorter, and the winters colder, yet the bees fly more or less the year around, and are only kept in the hives for several days at a time by cold weather.

Neither will anybody surmise that the above would mean the length of the honey-flow, or that there was a continuous honey-flow during this entire length of time. Not at all. While there is some honey coming in more or less all the time, yet the real honey-flows for the surplus are much shorter, and mostly far between.

#### THE TIME OF THE PRINCIPAL HONEY-FLOWS.

During early spring there are, in my immediate locality, a great many early bloomers that yield both honey and pollen in abundance for brood-rearing, and colonies build up strong and become very populous very early in the season, if the right kind of hives and management are used. There must be plenty of room, and in such shape as will be most essential for the colony. This is simply mentioned here because without it the colonies would not become most populous, no matter how good the early spring bloomers and the yield.

If rains have been plentiful the previous fall so that the mesquite tree, and all other trees and shrubs, have accumulated an abundance of sap upon which they thrive during the following season, then we may expect a heavy flow from the mesquite early in the season, in April. Unless a late frost injures the bloom, or a late spell of cold weather hinders the secretion of nectar, or keeps the bees in the hives, we may expect a good crop of surplus honey, especially if the weather and other conditions are favorable. The flow lasts from a week to ten days, and often from 25 to 100 pounds of surplus honey per colony is stored. This shows the importance of having the strong colonies referred to in a previous paragraph.

This refers more to central Texas. In southwest Texas this flow is preceded by a good and a heavy flow from cat-claw. Occasionally, however, this is cut short by late cold weather on account of its earliness.

Farther west, guajilla (pronounced "waheah") covers the country over thousands upon thousands of acres of pas-

ture-land, and it yields an early and abundant flow of nectar. This honey is of a water-white color, and the flavor is one of the mildest produced in the State. It has also achieved quite an extended reputation, and the supply is not equal to the demand, the most of the crop being already sold before produced.

In central Texas, again, the mesquite flow in April is followed closely by a flow from horsemint in May. This, when abundant, yields great crops of honey, as high as 700 pounds being once taken from one colony as the product from this source alone. On account of several dry years of late, and a scarcity of seed produced during that time, horsemint is not as plentiful as in former years when it grew so thick over all the prairies that it was often impossible to walk through it.

Where horsemint is not so plentiful, in many localities the prairie marigold (*Gaillardia pulchella*) follows the mesquite, and sometimes together with horsemint, both coming in May. This, however, is a darker, golden honey, while the others are all of light color. There is no trouble about selling it, however, especially in the extracted form.

In June the second flow from mesquite is of much importance, especially when the early April flow has been light, which is often caused by a previous dry fall. Then the June flow is the heaviest, while, sometimes, it is very light when the early bloom yielded well. Thus, it will be seen that there are two distinct blooming periods of the mesquite tree, two months apart. During the latter ripe beans will be seen together with the flowers on the same tree.

Soon after this cotton begins to bloom, from June 15 to July 1, and lasts until frost late in the season, sometimes yielding heavily and at other times only slowly, depending a great deal upon the weather and atmospheric conditions. From this plant the nectar is not only gotten from its flowers, but there are nectar-glands on the underside of the buds and on the ribs of the leaves which secrete pure nectar.

Sumac yields well in August and September, and extends pretty well over the entire State, hence it should not be omitted here.

In south-central Texas the main flow is from the rattan-vine, which is very abundant especially in lowlands and in the bottom-lands of the large rivers. In early spring this is preceded by many bloomers; along the rivers by willows mostly, and many vines, and by different kinds of oaks and other plants on the uplands, which mostly yield much pollen, and thus aid in building up the colonies.

The rattan blooms in April, and from this source a large amount of honey is procured. It is, however, of an inferior quality to that produced farther west from other sources. It is almost entirely put up in barrels and goes to Northern markets for manufacturing purposes in the large bakeries of biscuit companies.

The yield being so abundant, which makes the crops procured large, results in bee-keeping being carried on quite profitably by the bee-men in that part of the State, even if their product does not rank so well in grades.

In east Texas the flora is entirely different from that already mentioned, and adapted to the more western and those of the arid regions. Here are forests of pines, and many other trees, and among them in many places are linden, or basswoods, and holly, which yield much honey, and large crops are obtained by the few bee-keepers who are located in this range. This part of the State is not yet well settled, hence there are not many bee-keepers, but the number is increasing. The main flow from basswood begins about May 10, sometimes earlier or later.

Besides those mentioned here it will be remembered that there are many other honey-yielding plants that fill in between and help out admirably, sometimes yielding some surplus. Those mentioned are only the principal ones—those from which the great bulk of the crop is obtained.

This will give the reader some idea of the main honey-flows, and how they follow each other. They all come from a natural source except cotton, which is the only cultivated one. Later on, when irrigation is resorted to more, we will add alfalfa.

Brazos Co., Tex.

(To be continued.)

### Cellar-Feeding of Bees—Mailing Honey Samples.

BY C. P. DADANT.

MR. DADANT:—You advise me to feed candy if I have to feed in the cellar. Now, why not feed honey in the comb, if we have it?



Why not feed sugar syrup if we do not have honey? What do you think of sending samples of honey by mail to advertise honey for sale?—W. D. N.

**I** ADVISE the feeding of sugar candy in the cellar, for two reasons: The first reason is that it is much the easiest way of feeding. If you have the hives piled in the cellar you can still feed candy without disturbing the bees, if the hives are separated from one another only by a 2-inch block. Raise the oil-cloth and lay the cake of sugar candy over the cluster. This may be done without any stir. The bees will reach the candy from the underside, and will perhaps ultimately cover it entirely. It is the nicest way to feed in confinement.

The second reason is that candy excites the bees less than any other food. Candy has so little moisture—they are so slow in absorbing it—that it does not create any excitement. When you give them combs or liquid honey, or even granulated honey—which is really the next best feed to candy—you are likely to excite them more or less. If you want to give them combs, you must either put them in the hive or lay them over the top, and this is more difficult than giving a small cake of candy, which, if rightly made, will last them longer than honey, and will keep them in better shape. Besides, the cake of candy is in more compact shape than combs more or less filled with honey.

And as to syrup or liquid honey, besides the difficulty of giving these to colonies that are piled up on top of each other, there will be more excitement in the hive when the food is reached by the bees. It is very important to avoid causing any unnecessary stir, in the cellar especially, during the winter cold weather, and from past experience it is not to be doubted that sugar candy of good quality is by far the best food.

Yet, if sealed combs of good clover honey are in reach, and can be laid on the top of the combs above the brood without disturbing the bees, this would be a very good method of feeding; but if there is any probability that these combs will be needed during spring to help the bees in brood-rearing, I would by all means retain them and put them away, using the candy until the bees are out of the cellar.

In addition to the gain of leaving the bees undisturbed, it is also more convenient to make sure of the amount of food consumed when sugar candy is used, for the size of the lump can be noticed at any time at the top of the combs, while, if the comb of honey has been emptied by the bees, it will be difficult to make sure of it; and removing it to give another will be sure to disturb the bees greatly.

#### SENDING OUT SAMPLES OF HONEY.

Now about sending out samples of honey. I believe this would prove more of an expense than the returns would justify. It is well enough to send samples of honey to prospective buyers, but to send the samples broadcast would, I believe, cost more than the circumstances would permit. Yet there may be a way to send samples that would prove inexpensive. Our method has always been to melt the honey and put it up in a small vial about  $\frac{3}{4}$  of an inch in diameter, and with an opening the full size of the vial, for more easy filling. We then put the vial in a block of pine in which an auger-hole has been bored of about the size of the bottle. This is also corked, and then wrapped in paper before mailing. In this way we have never had any trouble.

Granulated honey may perhaps be put up in a cheaper way, but unless it is put up in a water or honey tight package, it is likely to soil the mail-matter should it be exposed to heat. Sometimes the mail-sacks are laid in close proximity to a stove, and very thick granulated honey might in an occurrence of this kind change to the liquid form and leak out, unless put up properly. On the other hand, so many people have no knowledge of granulated honey that it would hardly be the right thing to send samples of granulated honey without a lengthy explanation, which would perhaps not be sufficient. We have always found it necessary to explain the condition of granulated honey in person until the customer is familiar with it.

Hancock Co., Ill.

**Some Facts About Honey and Bees.**—This is the subject of an article written by Mr. J. E. Johnson, and published on pages 581-82 of the American Bee Journal for Aug. 25, 1904. We have republished it in 4-page leaflet form for general distribution, and furnish it, postpaid, at 35 cents per 100 copies. Send all orders to the office of the American Bee Journal.



## Convention Proceedings

### Report of the Washington State Convention.

On Wednesday morning at 10 o'clock Pres. Jesse W. Thornton called the Washington State Bee-Keepers' Association to order at the City Hall in North Yakima, Wash.

Mrs. Legh R. Freeman was made secretary *pro tem.*, and read the minutes of the previous meeting.

Mrs. Susan Thornton, the treasurer, was at her desk and received the annual dues from a number of old and new members.

Article II of the Constitution was so amended as to read: "The object of this Association shall be the promotion of scientific bee-culture by forming a strong union among bee-keepers, the purchase of supplies, the marketing of honey, the necessary legislation, and the protection of the industry."

J. P. Berg, chairman of the committee on the purchase of supplies in carloads, reported that they were still investigating and getting bids from the different manufacturers. He requested that all persons that are members, or who desire to become members, report to him at once at North Yakima, the quantities of supplies that they need.

Interesting discussions were participated in by Bert Stewart, Robert Cissna, H. H. Cole, Isaac Hayes, J. P. Berg, W. P. Clark, P. A. Gildea, Legh R. Freeman, the president, secretary and treasurer, at the end of which the president appointed Legh R. Freeman, Isaac Hayes and Bert Stewart to secure space at the Lewis and Clark Exposition, and to interest the bee-keepers' associations of the States of Oregon, Idaho, and California to co-operate with the Washington Association in making a grand display of honey, bees and the by-products, and preparing literature and circulating it; and seeing to it that a booth is arranged at which the public shall be feasted on honey, hot waffles, etc.

The president also appointed Mrs. Susan Thornton, P. A. Gildea, H. H. Cole, Anson White, Robert Cissna and W. P. Clark a recruiting committee for the purpose of securing as many new members as possible throughout the State. The committee will solicit membership among business men who may be disposed to contribute one dollar for the purpose of aiding in making a display at Portland.

After a recess for lunch the secretary read letters from the various firms quoting prices for supplies, and the committee was instructed to proceed with its work.

Isaac Hayes and Legh R. Freeman were directed to prepare a paper to be read at the annual meeting of the Yakima County Horticultural Association in February, showing the advantages of bees in the orchard, and the proper time to cut alfalfa with reference to securing the nectar in the blossoms, and also the feed-value of alfalfa if allowed to bloom.

The president was instructed to assign to various members subjects which they are to reduce to manuscript and read at the February meeting; and he is to arrange for toasts and responses at the banquet which will follow the three days' session. At this banquet honey is to be served in many ways that will tempt the appetite.

MRS. LEGH R. FREEMAN, Acting Sec.

### Co-operation at the Minnesota Convention.

The Minnesota Bee-Keepers' Association held its annual convention at the First Unitarian Church in Minneapolis, Dec. 7 and 8, 1904.

After an invocation by Rev. J. H. Kimball, George W. York, Ernest R. Root, Fred and Bessie Dittmer, and a representative from the G. B. Lewis Co., were introduced.

The minutes of the 1903 meeting were read and approved.

As considerable interest of the meeting centered in a Committee on Co-operation, appointed in 1903, and an amendment to the Constitution proposed by this committee, a brief report of the proceedings is here given, so far as they related to the subject of co-operation.

That part of the minutes of the 1903 meeting, referring to the appointment of the committee, read as follows:

"The appointment of a committee on co-operation was objected to, and the president named a committee with the understanding that it is a separate organization, and not a part of the Minnesota Bee-Keepers' Association."

The avowed objects of this committee were to investigate the subject of honey-prices, with a view to their betterment by means of co-operation, and to obtain, if possible, a reduced scale of prices on apianian requisites.

At the proper time the chairman of the Co-operation Committee made his report, but the president ruled that, on the showing of the minutes read and approved, the committee had no standing, and their report could not be heard. On this rule being objected to, it was sustained by a vote of the convention.

Shortly after their appointment it seemed that the Co-operation Committee was being opposed, and in order to ascertain its status, the chairman wrote to the secretary of the Association, asking for a copy of the minutes of the 1903 meeting referring to the appointment of his committee. The secretary wrote as follows: "The only reference in the minutes of the annual meeting to the Committee on Co-operation appears to be the following: 'A committee on organization was appointed as follows'. Then follow the names and addresses."

As there was thus a considerable difference between the actual minutes and those read at the present meeting, W. R. Ansell moved an amendment of the minutes to make them agree with the notes taken at the 1903 meeting. By arrangement, consideration of this motion was deferred till a later stage in the proceedings.

Meantime, an amendment of Article II of the Constitution, notice of which had been mailed to all members, was proposed by Mr. Ansell, and seconded by F. A. Gray. Article II says: "The object of this Association shall be the promotion of scientific bee-culture by forming a strong band of union amongst bee-keepers".

As proposed, the article would read: "The object of this Association shall be the promotion of scientific bee-culture, and of the general interests of bee-keepers, by forming", etc.

Mr. Ansell said: "This amendment would seem necessary from the action of the Executive Committee in deciding that co-operation is inconsistent with the objects of the Association, which, according to Article II, are of a purely scientific nature. It even seems necessary in order to legalize our present program, where such papers as 'Poultry as an Adjunct to Bee-Keeping', 'Insuring Bees', 'Selling Honey Through Grocers', 'Honey Exhibit at the State Fair', etc., find place. The Committee on Co-operation has gone to considerable pains and expense, and has succeeded in making arrangements with a certain manufacturer of supplies for prices ranging from 25 to 30 percent less than the retail prices of some others. And now we are told that the Association can have nothing to do with co-operation, because co-operation is not 'scientific bee-culture'. I hold that an association of this sort, whatever it is nominally, is not in practice a purely scientific society, and that it should be able to initiate any sort of work which is in the general interests of its members. In other words, it is to legalize its past and present action that this amendment is sought, and not to revolutionize its character."

Messrs. F. A. Gray, S. Lindersmith, Wm. McEwen, H. V. Poore, and Mrs. J. B. Thompson, and others, spoke in favor of the amendment. Dr. Jaques, Wm. Russell, Rev. J. H. Kimball, and others, spoke in opposition.

After Scott Lamont had pointed out that the amendment, if carried, would entail an expense of \$25, both motions for the amendments, respectively of the minutes and of the Constitution, on being put to the meeting, were lost.

A MEMBER.

**Honey as a Health-Food.**—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food", written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey". It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey the more money they will buy.

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## Our Sister Bee-Keepers

Conducted by EMMA M. WILSON, Marengo, Ill.

### Cords of Helpfulness—Influence of Locality.

DEAR MISS WILSON:—Please accept my personal thanks for your most welcome and appreciated card of New Year's greeting to our bee-keeping sisters. The cordial, appreciative, encouraging words of good cheer struck a responsive chord in our hearts. I'm sure all who read your words felt in very truth that it would be a treat indeed to meet face to face with our chieftainess, and clasp hands and have a good old-fashioned chat with these ladies, who, during the past year, have helped to make our corner of the American Bee Journal so very interesting and helpful.

This is a great age in which we are living. I suppose there has never been a time when the individual, as an individual, was of so much account, or received so many helps to make life seem worth living. It is an age when the brotherhood of man is accepted as a fact, and acted upon in its deepest, most affectionate, and sympathetic sense as never before. Many cords are stretched out to draw us—even the most isolated—into a close, familiar touch with each other, and the great work of regeneration steadily goes on about us.

One of these cords is this department of ours, in which we catch glimpses of each other's lives and interests and experiences, as we would in no other way. We, who are in the heat of the battle, know so well what our sisters' victories mean, and at what a price they are bought. And as we read, words of praise and encouragement spring unbidden to our lips, and if they sometimes fail in expression at the pen-point, it is only because life is too strenuous and its duties too arduous to allow the time. I have thought, after reading suggestive points in some of our sisters' letters, that it would be a good plan to write on a convenient pad the comment or question it gives rise to, and when a leisure hour comes to "talk it out". It seems as though this would be a good scheme, one which most of us may adopt, and one that would be helpful and encouraging to you.

Another cord is the photographs of those whose writings and advice have helped us over many hard spots. It is very pleasant to know how they look. It brings them very near, and our personal interest and liking receives a decided impetus. Though we know that, like our genial Dr. Miller, they are "younger and better looking" than the cuts show, we view their pictured faces with complacency, and feel proud of so nice-looking, intelligent, and refined a body of representative apiarists.

I have felt that in caring for our bees we do not sufficiently take into consideration the locality. We frequently read of work being done in yards which would not be practicable in our own. There is a great variety of climate in American apiaries, and it seems as if we do not always get as much benefit from advice, instruction, and our bees as we would could our atmospheric and climatic scale be our guide. It is quite a help to know where our writers live, and what kind of weather they have to adapt their apiaries to. In one respect I find myself out of harmony with many of our bee-yards. It is in regard to our fall work. Practically we have thus far in our work been unable to do any of the manipulating for winter that others find so important.

Our yard is situated near the north end of Lake Champlain, about 8 miles from the Canada line. Our supers are on for the buckwheat bloom until the frost kills it and most other bloom, and from then until snow flies there is an almost unbroken sequence of leaden skies above us, and high, cold winds over us, which sweep down from the Adirondacks or over the lake from the mountains of Vermont. The temperature is very changeable, a drop of 40 degrees in an hour being quite a common occurrence. As a rule, we have to hustle off our supers with chilly fingers, the honey out of the combs before it congeals, and make the hives warm and tight in a hurry.

There is scarcely a single day after that till the following spring when it is safe to open the hives and make any examination as to the condition of the interior. If it is attempted more harm than good follows, as great risks are



run in starting the bees to robbing and in chilling the brood. Therefore, I do all the manipulating for the year before the supers go on, and use only the honey from the supers, never taking it from the hives. Usually only one or two colonies die in the cellar, though I sometimes lose quite a number from spring dwindling. I even up the food in the spring, and do not find that any honey is wasted. The period from fall to spring bloom is a long one, and the weather much of the time, even then, is unfavorable for flights.

I had a rather strange experience in our apiary the past fall that I will try to describe, and get your advice about, when I write again. I wish you individually, and our sisters collectively, a Happy New Year, and many of them.  
Clinton Co., N. Y., Jan. 5. FRANCES E. WHEELER.

Thank you very much for your encouraging words. I assure you they are most thoroughly appreciated.

Your suggestion about the use of a pad is an excellent one, and I sincerely hope that many of the sisters will put it in practice. While reading jot down a memorandum of this or that, and then, when you have the leisure, write out the thoughts and send them in for our department.

It is true localities differ, but I never knew before that there are localities where there are no warm days after buckwheat frost.

### A Champion for "Our Sister Bee-Keepers".

My sister Mary's bees is asleep in the cellar. They don't try to sting, nor even buzz. She gives us honey on our bread instead of that rancid packet butter. My, but it's sweet! I like it. Mary used to say we needed a "Woman's Bee Magazine", until one column of "Old Reliable" donned the female attire. Now she wishes so many more women with either scientific or practical education would write for Mis Wilson that you'd have to enlarge her space. Pa's been reading it, too. He says in these days when so many men refuse to support a family, lots are mean enough to find fault if a woman takes the job; and many women are ferocious of having bond-chains riveted on them by matrimony, so worthy women are compelled or choose to earn their own living, and it is pleasing to see some one come to the front and advocate woman's rites in apiculture with so much practical ability as Mis Wilson is doing it.

I've been reading all the papers, too, and I think pa's right. She keeps her field clear of pretentious "weeds". Not only us little boys does she lug out, but if a big "Hasty" man, not easy caught, gets in she gets after him with her pointed cane, and big bitin' and "Eaton" dog, with his doggies and "Doggetts", and chases him back into his own big field. Ha-a-a! as he gets over the fence with his ears hangin' he glances back and thinks aloud, "I'm licked".  
Womantown, Dec., 1904. JOLY JO.



## Mr. Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

### NEW "HEADS" MAKE HIS HEAD SWIM.

My "head" swims, Miss Ayebejay. Hardly got reconciled to the one you gave me last before you whisked away my honey-knife and dealt me a new caput. Hence, this inclination to "put a head" on somebody. Momentarily expecting to open the Journal and find myself reading up and down like a Japanese conundrum.

### SELECTING LARVÆ FOR QUEEN-REARING.

Only about 15 of the experts seem to be competent on Ques. 19. It is quite important to know whether there is serious danger of too old a larva being chosen queen by a colony suddenly made queenless; yet few of the respondents cover exactly that point. At least 9 of the 15 allude to the great variability of the age chosen. Only about 5 out of the 15 express confidence that newly-hatched larvæ will be chosen usually. More would have done so had they covered that point perhaps. The true inwardness of this difficult

question depends upon another question still more difficult. For the first 48 hours of life is the food identical for young worker and young queen? I suppose a good many would answer: Practically, yes—and therefore it makes no particular difference whether the young queen is "elected" at hatching or at 48 hours old. I take it that another good many (and with some hesitation I will cast my lot among them) entertain doubts about that. Still possible that the young worker 3 hours old, and the young queen 3 hours old, may not be fed *exactly* the same food. Page 837.

### BEE-CRANKOSITY.

(Abstract noun.) A disease. Sometimes becomes chronic; and has been known to persist 30 years. Page 838.

### THE EYES OF BEES AND HOW THEY WORK.

Prof. Cook does quite as well for us in giving us the generalities about bees' eyes as he would have done in going into minute matters. As he hints, two kinds of eyes so diverse suggest difference of function. But it seems no one stands ready to prove that yet. And as to *what* the difference of function is, if any, few even propound a working theory that sounds plausible. That animal eyes are round, and insect eyes much elongated I should guess is merely the natural result of the inevitable smallness of the latter. The laws of optics demand a space between lens and focus that easily can be had in a large eye of any shape, but in a minute eye only by elongation. Interesting to find that general structure, even to the humors, is similar to animal eyes. I had somehow got the idea that the sections of a compound eye were empty like telescope tubes. And so the *retina* shows more decided differences than the other parts do. Prof. Cook alludes to the apparent fact that bee-vision is not keen. I have often thought of this. The fact that hungry bees will never rush to food on the sight of it, as pigs or chickens do, seems to be proof positive on that point. On the other hand, a bee on the war-path sees well enough (and quickly) to discriminate between clothed surfaces and bare skin, and to select eye-lids, and lips, and ear as favorite places to sting. Or will much of this turn out to be super-sensitive smell? Sight hardly suffices to select the thin places of a glove in preference to the thick places, and bees will do that nicely. It seems the observers have it almost proved that each section of a compound eye has *fractional* vision instead of operating as an independent eye. Each facet takes a part of the object, and the optic never puts the parts together. Curious. I'll guess that the overlapping of images doesn't do much harm, and that the fractions are not put together quite as sharply as the sections of a patchwork quilt. Page 838.

### SHOOTING SWARMS OFF TREES.

My inner consciousness tells me, Mr. Stolley, that no man alive can *always* tell the spot where a shot-off branch will fall. Swings hither and yon before it starts; and the amount and direction of the swinging depends upon too many things—the completeness of the severance for one. Have the hive all ready and near by. Bring 'em down first; and then set the hive just at the most promising spot. Of course, Mr. S. is thinking of blowing completely away an inch or so of the branch. Perhaps he can do it—sometimes. The tall trees that most bother me are basswoods; and sometimes the bees break the limbs off themselves and fall. Alas, it's the exceptional and not the usual luck for a cluster to form where it has clear way to drop to the ground without lodging into something! Page 838.

### SAWING OFF SWARMS—A CORRECTION.

My attack on the habit of sawing off swarms has a bad "out" either in my copying or in the printer's work. Not true that so many as several hundred in each thousand cause damage to the neighbors. What I was trying to say was that several *dozens* cause damage to the trees; and that several *dozens* cause damage to neighbors' trees. Page 7.

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## Doctor Miller's Question Box

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. MILLER, Marengo, Ill.

### Bee-House Bees Exercising in Winter.

Is it best to open the doors of the bee-house on fine days for the bees to exercise? It is perfectly dark when the door is closed.

MICHIGAN.

ANSWER.—If the construction is such that the bees will easily find their way back to their hives, they may be allowed to fly; otherwise not.

### When to Clip Queens' Wings.

When is the proper time to clip queens' wings? VERMONT.

ANSWER.—Your desire for a speedy answer suggests that you may be thinking of clipping in winter. Don't do it. Neither should you do it on the day bees take their first flight in the spring. But any time after that before swarming-time, on a day when bees are flying and gathering from flowers.

### Moving Bees a Short Distance.

I have 6 colonies of bees, and want to move them this winter about 300 yards, over in a young orchard. Can they be moved without the bees leaving the hives next spring when they begin to fly? Will they go back to the old place where they were last year, or will they take to their new places where I intend to put them this winter? I would not want to lose the bees by moving them. OREGON.

ANSWER.—Move them at a time when they have had no flight for a long time and there will be no trouble, especially if the old spot is changed as much as possible in appearance.

### A Method of Preventing Increase.

I have kept bees on the farm for 14 years. I aim to keep down swarming as far as possible, by hiving the prime swarms on old stands. I have 50 colonies now, and don't want any more increase. What will probably be the result if I hive prime swarms on the old stand, and break up the old colonies, and about eight days later unite it with the prime swarm? Or can you suggest a better plan? SUBSCRIBER.

ANSWER.—Your plan may work all right if you don't mind the loss of brood. Here's a plan that would not result in loss of brood, if you don't mind the trouble: When a prime swarm issues kill or remove the queen, returning the swarm, and a week later destroy all queen-cells but one. Better still, put your ear against the hive each evening, beginning a week after swarming, and when you hear piping destroy all cells the next morning.

### Hives, Sections, Supers, Etc.

I would like to have a catalog of bee-supplies describing the hives, sections and frames that you use, and where they can be had, with prices. Which is the best arrangement for honey with the least trouble and manipulation, to keep bees with outdoor wintering, where the temperature goes as low as 30 degrees below zero? I have been thinking of making box-hives of 2-inch lumber, 2½ feet deep, 12 or 14 inches inside measurement; fit them up with frames, with supers to suit, and interchangeable with 2-pound sections. WEST VIRGINIA.

ANSWER.—Taking the last part of your letter first, I should advise against you making more than one or two hives, such as you describe, till you're sure you'll like them. I doubt whether you will. Two-inch lumber will be expensive and unwieldy without corresponding advantage. Very likely you think the heavier lumber will be warmer for winter; but you can have the extra warmth more easily with some kind of outside packing, if it's nothing more than corn-stalks piled around, and you will find the thinner walls better for summer. If the cold is so continuous that there is seldom any chance for the bees to fly in winter, it would be worth your while to try at least a colony or two in the cellar. You see it isn't so much the severity of the cold as its continuance that is to be considered. If the temperature goes down to 30° below zero every two weeks, and if the bees have a chance to fly every two or three weeks, they'll winter outdoors all right. If it never goes below zero, but keeps somewhere in that neighborhood without a chance to fly for five months, then they are better in the cellar.

I'm sorry to say that I don't know of a catalog that has every-

thing in it just as I use it, but any catalog will contain what I use with just two changes that you can have made to order. I dislike having anything but regular goods, but when I think any one thing out of the regular order is decidedly better for me than regular goods, I feel obliged to make the change. One of the things is a plain cleat on each end of the hive 1½x¾, and as long as the full width of the hive. It is away ahead of short cleats or hand-holes for handling the hives, and it strengthens the weakest place in the hive—the thin part left by the rabbet. The other is the Miller frame, which you can have made to order. You'll get nearly the same thing if you order the regular staple-spaced frames. I feel very confident you'll like the full cleats, but you may not like the Miller frame as well as I. It makes as little trouble with bee-glue as any self-spacing frame I know of.

As before said, by ordering specially these two changes you can get from any catalog the things I use, which are: The 8-frame dovetailed hive (unless you pay very close attention to your bees the 10-frame may be better for you, especially if you winter them outdoors), the T super, the common 4¼x1¾ section, with plain wooden separators. Yes, there is one other thing, too, that is different from the catalogs, but it is not so important in my estimation as the other things, and that's the bottom-board. It is just the plainest kind of an affair, a box open at the front end and two inches deep. You will find them in the catalogs as much as ¾-inch deep, but for winter two full inches is none too deep. In summer the extra depth may be filled up with a piece of board, or in any other way.

It just occurs to me that if you get a regular 10-frame hive it will be without a dummy. I don't believe I could stand that; for the dummy is of the greatest importance in getting out the first frame; so in that case I should probably use 9 frames and a dummy thick enough, or, still better, two thin ones.

I thank you for your kind words.

### "Shook" Swarms and Out-Apiaries.

1. I want to start an out-apiary of about 12 colonies next spring for the production of comb honey. I would like to practice the shook-swarm method. What would be best to shake the bees on, empty combs, starters, or full sheets of foundation?

2. When would it be advisable to practice the shook-swarm method, when they have the frames mostly full of brood, or would they have to have queen-cells started, as I can not visit the out-apiary but once in a week?

3. Would I have to put a frame of brood in the empty hive with the shook swarm?

4. I practiced the shook-swarm method a little last summer, but some of them would swarm out again the next day. What was the cause of that?

5. Now, if I want to produce extracted honey would it be necessary to have a queen-excluder above the first story, or let the queen have full access to the hive? WISCONSIN.

ANSWERS.—1. Empty combs are probably best, and full sheets of foundation next.

2. Wait till queen-cells are started, at least the earlier ones. As the season advances you can shake without waiting for queen-cells, provided you are sure you want them all shaken.

3. Not sure. Perhaps it would be well to give one frame of brood to be taken away at next visit.

4. I don't know. Possibly it was hot in the empty hive, and they swarmed out just as a natural swarm often does under the same circumstances. A frame of brood may hold them.

5. You can do either, depending upon circumstances. If all stories have combs just alike, use an excluder; if combs in the upper story are widely spaced and well built out, an excluder may not be necessary. It is said the queen will not trouble so much if extracting frames are shallow.

### What Is Honey?—Honey Inspectors.

Dr. Miller, you, like Solomon of old, are called on to solve all hard and knotty questions. In these days of adulteration and pure-food laws, a farmer with an apiary is likely to be "jerked" for selling his own production. His milk, cider-vinegar, and buckwheat flour must be inspected. And now the big honey-producers are forcing a honey-inspector, and I would like to know what honey is, and all that is honey.

Long ago, before sweets were manufactured, honey was given to man; all the liquid, viscid sweets that the bees gathered and stored in waxen cells and capped over was honey, pure and unadulterated honey, and was good food for man. We know there are as many kinds of honey as there are sources from which it is gathered.

Please explain honey so that we need not fear to feed our bees and get "jerked" for it. ILLINOIS.

ANSWER.—My good friend, if Solomon didn't know any more about things in general than I do about bees, he was something of a slouch in wisdom, after all. Certainly, I don't feel competent to the task of saying in a few words just what honey is. It will hardly do to say it's any liquid substance that bees store in cells, for it ought not to include sugar syrup. No more will it do to say that nothing is honey except that made from nectar gathered from the flowers by the bees, for with that restricted definition I wouldn't dare to guarantee as pure a single pound of any honey I might produce. Some kind of a definition should be framed that would include anything sweet stored by the bees without being fed by man, possibly; and possibly that isn't right. Sealed proposals for a satisfactory definition may be sent postpaid to this office!

## Reports and Experiences

### Bees Wintering Well,

We have now 10 colonies in 8-frame, dove-tailed hives. To-day being a fine day we looked through them and found them all in fine condition, strong in bees, and with the exception of two all had plenty of stores. Until Christmas we had fine weather, but now have had a few cold days but no snow yet and bees can fly almost daily. C. H. KOENTZ.

Cleburne Co., Ala., Jan. 21.

### Weight of Sections—Farmer Bee-Keepers.

One Sunday morning I had a caller to whom I gave a section of honey. He ate it all and went to church. A young man asked a grocer if he would give him as much honey for 25 cents as he could eat. The grocer agreed, and this man ate 2 sections, and said he could eat one more, but he didn't want to be "hoggyish".

I sold 2 shipping-cases of honey to a large family in our village. One weighed 23 and the other 24 pounds. One of the boys said to me: "My brother—8 years old—can eat 2 sections at a time."

Last fall I sold extracted honey to a country woman. She saw comb honey on the table and said: "We can't afford to buy comb honey, for one section would not be enough. We are 5 at our table."

I write this because in the Colorado convention report appeared something to this effect: that 12 ounces would be enough in a section; people want honey on the table but once. Are the millionaires the greatest honey-consumers?

Years ago I wrote to the American Bee Journal that selling honey by the piece for a

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pound, even if it does not weigh it, is not right, and I will always say so. I think it does injustice to all bee-keepers.

I sold 23 pounds of extracted honey to a family formerly living at Milwaukee. They had to pay 14 cents per pound there. I think some dealers take too large a profit.

I read Mr. Bartz' article on honest weight with great interest, but when I read Mr. Hasty's "Afterthought"—about Mr. Bartz with his 17 ounces—it made me so angry I thought I would never read Hasty's "Afterthought" again.

A question arose in the Wisconsin State Association, "Shall we encourage farmers to keep bees?" It was answered, "No, they spoil the honey market", and every bee-keeper ought to keep less bees so as to increase the price of honey. When one kind of grain or one kind of cattle, etc., becomes too cheap, the farmers sow or raise less of that kind.

I always got 10 cents per pound for my extracted honey, but for the last year-and-a-half I sell it at 8 cents because a farmer sold his extracted for that price. I sold 1,000 pounds or more last year and most of this to farmers, but if all farmers kept bees, should we sell this honey to dealers for 6 cents per pound?

I got about 85 pounds of comb honey per colony, spring count, last season. I have all my bees in 10-frame hives.

WM. DUESCHER.

Brown Co., Wis., Jan. 11.

### Winter Confinement of Bees.

I have 33 colonies of bees, and have worked to prevent swarming, succeeding pretty well. I work for both comb and extracted honey.

I have wintered bees in the cellar for the past 25 years, and they always come through good and strong. I do not believe taking them out early does them any good, and I



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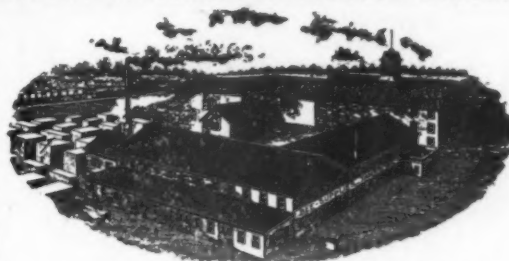
L. L. OLDS SEED CO.

Drawer G Clinton, Wisconsin

## Hardy Blizzard Belt

nursery stock grown in Northern Iowa is **Healthy** and full of fruiting vigor. To introduce our new method of grafting, which insures a hardy root system, we will send free to each property owner reading this advertisement, 6 Long Scion, Foster Mother Root Apple Grafts (ready for planting) of our best hardy sorts. Postage 5c which you may send or not as you choose. A postal will bring them. Write today. Price list, bargain sheet, etc., free. Address

**The Gardner Nursery Co.**  
Box 715, Osage, Ia.



AGENCIES.—Trester Supply Co., Lincoln, Neb.; Shugart & Owen, Council Bluffs, Iowa; Fulton & Ford, Garden City, Kan.; I. H. Myers, Lamar, Colo.; Southwestern Bee Co., 438 W. Houston St., San Antonio, Tex. **KRETCHMER MFG. CO., Red Oak, Iowa.**

Please mention Bee Journal when writing

## Bee-Supplies!

### Discount for Early Orders

We carry a large stock and greatest variety of everything needed in the Apicary, assuring **BEST** goods at the **LOWEST** prices, and prompt shipments. We want every bee-keeper to have our **FREE ILLUSTRATED CATALOG**, and read description of Alternating Hives, Massie Hives, etc. **WRITE AT ONCE FOR CATALOG**

## Louis Hanssen's Sons

Carry a complete stock of

**G. B. LEWIS CO.'S**

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Lowest prices and quick service.

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Davenport, Iowa, 213-215 W. 2d St

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That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

**Prof. A. J. Cook, Claremont, Cal.,**

—FOR HIS—

**"Bee-Keeper's Guide."**

Liberal Discounts to the Trade.

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Let us quote you prices on Sections, Hives, Foundation, etc., as we can save you time and freight. **Beeswax Wanted for Cash.**

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EACH POLICY HOLDER is entitled to a Bond issued by the  
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YOU may hold a policy and BOND.

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That's how they pay their own cost—they seldom cost anything for repairs—guaranteed for one year. This proves they are perfect in mechanism. Nothing to get out of order—simple, durable. Clear and strong in talking qualities. The standard by which all telephones are measured. "As good as Stromberg-Carlson make" is an argument used to sell others. We have just published a book that tells ALL about telephones. Ask for book P-80, "Telephone Facts for Farmers." We send it free on request. Address nearest office.

**Stromberg Carlson Tel. Co.** ROCHESTER, N. Y.  
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Send for Our 1904 Catalog and Price-List.

### OUR HIVES AND SECTIONS Are Perfect in Workmanship and Material.

By sending in your order now, you will SAVE MONEY, and secure prompt shipment.

We will allow you a cash discount of 3 percent on orders sent in during January.

**PAGE & LYON MFG. CO., New London, Wis. U.S.A**

### FOR YOUR BEE-SUPPLIES, BERRY-BOXES & CRATES

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LIBERAL DISCOUNTS on all orders till Jan. 1, 1905. 1A13t

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Bee-keepers, like all other fair-dealing people, want the BEST of goods, the BEST of service in filling their orders, the BEST of prices and the BEST of everything connected with getting their Supplies; the VERY BEST that can possibly be given for the money is necessary to give entire satisfaction and what all should have.

To absolutely please bee-keepers in filling their wants has been our constant aim for eight years, and while we do not boast about ourselves we are sure that we are excelled by nobody. If you are not already a customer don't fail to write to us and tell us your wants.

**Bees, Supplies, Honey and Beeswax.**

Lewis' Goods at Factory Prices.

SPECIAL DISCOUNTS given on all orders before the rush season.

**C. M. SCOTT & CO.**

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have left them in sometimes over 5 months. It is not the length of confinement that injures the bees so much as a poor quality of honey for winter stores.

I took the American Bee Journal long before Mr. York became the publisher of it, and I think I must be the oldest bee-keeper in this State. I have kept bees for 36 years, and in that time lost all but one colony. In the course of 10 years I again lost all but one. I built up each time from the single colony. If I live till spring I will be 79 years old.

Linn Co., Iowa, Jan. 9. D. C. WILSON.

### Rains in California.

We have just had more rain in the nick of time. If there comes as much in February and more in the last of March there will be a crop, either large or small, according to the amount of rain in March. In this locality about one-half, or more than that, of the colonies, are dead. But there are enough left.

C. W. DAYTON.

Los Angeles, Co., Calif., Jan. 17.

### "The Survival of the Fittest."

April 1, 1903, I had on hand 84 colonies, and produced 4000 pounds of comb honey and increased to 148 colonies. I left these unpacked on the summer stands all winter, knowing that they would survive a common winter with very little loss. But, alas! the uncommon winter caught them and they starved and froze to death with from 10 to 30 pounds of honey in their hives.

May 10, 1904, I took inventory of stock and found I had only 7 queens and about 3 quarts of bees left. This now constituted my entire



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Incubators and Brooders

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I publish and recommend to you THE RURAL BEE-KEEPER, the best all-around 50-cent monthly bee-journal in America. On trial 3 months for this ad. with 10 cents. Clubbed with this publication both for one year for \$1.25; or send us 25 cents for a 3 months' trial and your name and address on a 2-line rubber stamp; self-inking pad, 25c extra. Or send \$1.00 and get The Rural Bee-keeper and an Untested Italian Queen-Bee. Sample copy free. Agents get liberal terms.

**Putnam Makes Good Bee-Hives**

And sells them at reasonable prices.

New catalog now ready. Address,

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Dept. 50-C. River Falls, Wis.

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Made of artificial stone. Practically indestructible, and giving entirely satisfactory results. Comb foundation made easily and quickly at less than half the cost of buying from the dealers. Price of Press, \$1.50—cash with order. Address,

**ADRIAN GETAZ,**

44At KNOXVILLE, TENN.

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A SOLID FOUNDATION  
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MEANS

## Solid, Straight, Well-Built Combs.



### 110,000 Pounds

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OF ALL KINDS.

BEESWAX WANTED at all times.  
Send for our 1905 Catalog.

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HAMILTON, ILL.

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stock of bees and queens, occupying 7 hives. I could not buy any to make up for the loss, but nursed these remaining stalwarts tenderly. They responded to my care most nobly. For, by Sept. 15, 1904, I had extracted 1400 pounds of honey and increased to 20 strong colonies of bees. This is a clear case of the survival of the fittest, in my estimation, and I will be greatly surprised if I have not a sturdy, hardy and profitable lot of bees, being the progeny of the survivors of the severe winter of 1903 and 1904.

J. T. HAMMERSMARK.

Tuscola Co., Mich.

### Is Pickled Brood Contagious?

All of my bees in an apiary of 51 colonies had pickled brood except one colony of Italians. I fed honey to all the diseased colonies. I let a neighbor have some combs from one of these diseased colonies, and the colony

**\$5.00 WORTH OF SEEDS FREE**

I want to get in touch with every buyer of seeds. My plan of giving \$5 worth of tested seeds free, is worth knowing. It includes a chance to make more dollars. Send for catalog and get packet of choice flower seeds FREE. A postal will do it.

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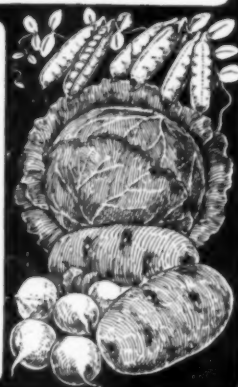
**For 35c**

1 big pkg. Salzer's Scorching Pea	10c
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Above seven packages of earliest vegetable and flower novelties positively have no equal on earth for earliness. If you wish the earliest, finest vegetables for your home garden or for the market, Salzer's seeds will produce them every time. We mail you above seven big packages, together with our great plant and seed catalogue for 55c stamps.

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We mail to you our big catalogue with sufficient seed of cabbage, celery, lettuce, onions, radishes and turnips to grow 3000 luscious vegetables and a package containing 1000 kernels of beautiful flower seeds besides!

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**\$12.80 For 200 Eggs**  
INCUBATOR

Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.

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### WANTED

An experienced man to work with bees. Wages, \$35 per month, including board. Also young man 15 or 20 years of age who wishes to learn practical bee-keeping; posit on by year; wages \$15 per month, including board. No drones need apply.

DR. GEO. D. MITCHELL & CO., OGDEN, UTAH.

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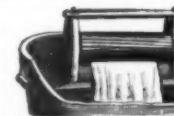
### TREES THAT GROW

Hardy varieties; yield big crops. Grafted Apple, 45c; Budded Peach, 35c; Black Locust Seedlings, \$1 per

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100 pieces an hour—all clean with **BUSY BEE WASHER**. No injury to finest fabrics. It's simple, quick, cheap. Agents Wanted. Address **Busy Bee Washer Co., Box E, Erie, Pa.**  
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Read what J. I. PARENT, of Charlton, N. Y., says: "We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey racks, 500 brood frames, 2,000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make, and we expect to do it with this Saw. It will do all you say it will." Catalog and price-list free.

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## LICE SAP LIFE

That's how they live and thrive. You can't have healthy, profitable fowls or stock and have lice too.

Lambert's Death to Lice

promptly kills all insect vermin and makes sitting hens comfortable. Sample tin: 100 oz., \$1.00 by express.

O. K. STOCK FOOD CO.,  
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into which he put them became diseased, so we destroyed it. I have killed 3 lots of bees to get rid of pickled brood, but I suspect it will return next season.

I sent samples of the dead larvae and brood to several experts on bee-diseases, and they all said it was pickled brood; I believe all but one of them think the disease contagious, and I am afraid it is. C. J. BARBER.

Monona Co., Iowa, Jan. 14.

## A WONDER WORKER

A metal incubator that hatches the kind of chickens a hen does—good, strong healthy chicks. The Cycle Hatcher is the only machine made that conforms to the exact laws of nature in incubation. Wonderful results have been obtained. 50 egg size only \$3. Free Catalogue. Cycle Hatcher Co., Box 224, Salem, N.Y.



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## This Lightning Lice Killing Machine



kills all lice and mites. No injury to birds or feathers. Handles any fowl, smallest chick to largest gobbler. Made in three sizes. Pays for itself first season. Also Lightning Lice Killing Powder, Poultry Lice, Lice, Mites, etc. We secure special low express rates. Catalog mailed free. Write for it.

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AT FACTORY PRICES. We have Falconer's branch house covering the entire Southwestern States and Mexico. Send for special catalog, etc.

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All leading races. Bees and Nuclei in any quantity for distant shipments a specialty. Send for circular and prices.

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Bought and sold. Honey-Cans in season. Be sure and get our prices.

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Full information regarding all kinds of BEE-KEEPERS' SUPPLIES. Best goods. Latest improvements. Danzenbaker Hives and Fixtures. Prompt shipments. JOHN NEBEL & SON SUPPLY CO., High Hill, Mo.

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8-frame HIVES, either plain, or bee-way supers, \$1.00. No. 1 Sections, \$4.00 for 1,000. 24-lb. Shipping-Cases, \$13.00 for 100; 12-lb., \$8.00 for 100; 20-lb. Danz., \$11.00 for 100.

HIVES, SECTIONS, FOUNDATION,

etc., by the Car-Load One year's subscription to Bee Journal free with orders of \$5.00 or over. Send for free list. BERRY BASKETS AND CRATES in stock. W. D. SOPER,

1Dtf RT. 3. JACKSON, MICH.

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It is bright and up-to-date. Tells all about Southern Home Life. It is full of fine engravings of grand scenery, wildings and famous people. Send at once. 10c a year, postpaid, anywhere in the U.S., Canada and Mexico. Six years, 50c. Or, clubs of 6 names, 50c; 12 for \$1. Send us a club. Money back if not delighted. Stamps taken. Cut this out. Send to-day. THE DIXIE HOME, 24A4st No. 75, Birmingham, Alabama.

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Tin 4-in. Smoke Engine 3 1/2-inch \$1.50.  
3-inch 2 1/2-inch 2-inch 2-inch Wonder \$1.10.  
65c—per mail.  
Sent on receipt of price per mail.

T. F. BINGHAM, Farwell, Mich.

OTISVILLE, PA., Jan. 18, 1904.

Dear Sir:—I have tried almost everything in the smoker line; 3 in the last 3 years. In short if I want any more smokers your new style is good enough for me. I thank the editor of Review for what he said of it. Those remarks induced me to get mine. FRED FODNER.

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FREE. Our large 1905 Poultry Guide is the leader. It's the best book ever published. Tells how to care for and MAKE BIG MONEY with poultry. Worth \$25 to anyone. Send for mailing. JOHN BAUSCHER, Jr., Box 94, Freeport, Ills.

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GAGE COUNTY NURSERIES

Box 646 Beatrice, Neb.

## 4% Discount to Feb. 1st

on the Best Dovetailed Hive made. Cheaper than the cheapest. Circular ready to mail. Don't miss it. 200 second-hand hives for sale cheap.

The Wood Bee-Hive and Box Co.

48Atf LANSING, MICH.

## Sweet Clover Seed

FOR SALE

50 lbs. or over, at 5 cents per pound. Address, 5A9t JOSEPH SHAW, Strong City, Kans.

## SEND YOUR NAME

for our special 15 day trial proposition on the **DANDY GREEN BONE CUTTER**. The fastest and easiest running machine made. It will double your egg yield. Price \$5 up. Stratton Mfg. Co., Box 21, Erie, Pa.



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line of our goods at Catalog prices. Order of  
him and save the freight.

### CONVENTION NOTICES.

**Wisconsin.**—A bee-keepers' convention will  
be held at River Falls, Wis., Feb. 8 and 9. An  
interesting program. Evening session with  
stereopticon lecture by N. E. France. All bee-  
keepers are cordially invited to participate.  
W. H. PUTNAM.

**Michigan.**—The Michigan State Bee-keepers'  
Association will hold its annual convention  
Feb. 23d and 24th, at the Eagle Hotel in Grand  
Rapids. The Eagle Hotel is located at 65 to 71  
Market St., cor. of Lewis St., one block south  
of Monroe St. It will give a rate of \$1.50 per  
day, and furnish a room free for holding the  
convention. The Michigan State Dairymen's  
Convention will meet in Grand Rapids at the  
same time, and advantage may be taken of this  
fact to secure reduced rates on the railroads.  
When buying your ticket, ask for a certificate  
on account of the Dairymen's Convention. The  
secretary of the Dairymen's Association will  
sign this certificate which will then enable the  
holder to buy a return ticket for one-third fare.  
W. Z. HUTCHINSON, Pres.

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The best of everything for the  
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**BIG DISCOUNTS FOR  
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60-page Illustrated Catalog will be out  
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521 Monroe Street,

**TOLEDO, OHIO.**

4A23t

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**AS ALL FREIGHT**  
**NOW GOES THROUGH CINCINNATI.**

Prompt Service is what I practice.

Satisfaction guaranteed.

You will save money buying from me. Catalog mailed Free.

Send for same.

Discounts allowed on early orders. Take advantage by  
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**Book orders for GOLDEN ITALIANS, RED CLO-  
VERS and CARNIOLAN QUEENS.**

For prices refer to my Catalog.

**C. H. W. WEBER** CINCINNATI  
... OHIO ...

Office and Salesrooms: 2146-48 Central Ave. Warehouses: Freeman and Central Aves.

Please mention Bee Journal when writing

## Honey and Beeswax

**CHICAGO, Jan. 24.**—The trade in honey is not  
large and the offerings on the contrary are  
quite liberal. This makes an easy market for  
the buyer. Fancy white comb, 12 $\frac{1}{2}$ @13c; No. 1,  
12@12 $\frac{1}{2}$ c; off grades, 10@11c. Extracted, white,  
6@7c, according to flavor, quality and package;  
anything off about one cent lower; amber  
grades, 5 $\frac{1}{2}$ @6 $\frac{1}{2}$ c. Beeswax, 29@30c.

R. A. BURNETT & CO.

**BOSTON, Jan. 9.**—The market is without  
change since last writing. The demand con-  
tinues light, and supply is more than ample.  
We quote: Fancy white, 16c; A No. 1, 15c; No. 1,  
14c, with practically no demand for No. 2. Ex-  
tracted, from 6@8c, according to quality.

BLAKE, SCOTT & LEE.

**KANSAS CITY, Jan. 9.**—The demand for comb  
honey still continues light, as most of the re-  
tail dealers were stocked up on \$2.25 honey be-  
fore the holidays, two cars of which were sold  
here at that time. We look for a better market  
in the near future, and quote: Fancy comb,  
24-section cases, \$2.50; No. 1, \$2.25. Extracted,  
white, per pound, 6@6 $\frac{1}{2}$ c; amber, 5 $\frac{1}{2}$ @6c. Bees-  
wax, No. 1, 28@30c.

C. C. CLEMONS & CO.

**CINCINNATI, O., Dec. 19.**—Comb honey is now  
coming in more freely, and prices if anything  
have moderated a little. The sales made and  
prices obtained were for No. 1 fancy water-  
white comb, 12@13 $\frac{1}{2}$ c; single cases, 14c. Ex-  
tracted is sold as follows: White clover, in  
barrels, 6 $\frac{1}{2}$ c; in cans, 7 $\frac{1}{2}$ @8c; amber, in bar-  
rels, 5 $\frac{1}{2}$ @5 $\frac{1}{2}$ c; in cans, 6@6 $\frac{1}{2}$ c. Beeswax, 27c.

C. H. W. WEBER

**PHILADELPHIA, Jan. 9.**—The market is un-  
changed from our last quotations, and trading  
light. We quote: Fancy white, 15@16c; No. 1,  
13@14c; amber, 11@12c. Extracted, white, 7@8c;  
amber, 6@7c. Beeswax, 26c.

We are producers of honey and do not handle  
on commission. WM. A. SELSER.

**CINCINNATI, Dec. 30.**—Since our last report  
was published, the price of extracted honey has  
advanced, no doubt acting in sympathy with  
the sugar market. We quote amber extracted  
in barrels at 6@6 $\frac{1}{2}$ c; white clover, in barrels  
and cans, 6 $\frac{1}{2}$ @8 $\frac{1}{2}$ c. Fancy comb honey, 13@14c.  
Beeswax, 28c.

THE FRED W. MUTH CO.

**ALBANY, N. Y., Dec. 26.**—Comb honey is mov-  
ing off very well considering the heavy re-  
ceipts and cold weather. Prices not as high  
as early fall, as usual, but very good yet.  
Fancy white, 14@15c; No. 1, 13c; mixed, 12@13c.  
Buckwheat, 11@12c; mixed, 10@11c. Extracted,  
dark, 6@6 $\frac{1}{2}$ c; light, 6 $\frac{1}{2}$ @7c. Beeswax, 28@30c.

H. R. WRIGHT.

**SAN FRANCISCO, Jan. 4.**—White comb, 1-lb.  
sections, 11 $\frac{1}{2}$ @12 $\frac{1}{2}$ c; amber, 9@11c. Extracted  
white, 6@6 $\frac{1}{2}$ c; light amber, 4 $\frac{1}{2}$ @5 $\frac{1}{2}$ c; am-  
ber, 3 $\frac{1}{2}$ @4 $\frac{1}{2}$ c; dark amber, 3@3 $\frac{1}{2}$ c. Beeswax,  
good to choice, light, 29@30c; dark, 27@28c.

Market is quiet and not noteworthy for  
strength. Although stocks here and through-  
out the interior are light, there is little inquiry,  
either for shipment or on local account. There  
is strong probability, however, that the spring  
trade will absorb the light stocks remaining.

**NEW YORK, Jan. 9.**—The market on comb  
honey is decidedly dull, and while there is no  
stock of dark and buckwheat to amount to  
much, all grades of white honey are plentiful,  
and for the present we cannot encourage ship-  
ments. We quote fancy white at 14c; No. 1 at  
13c; No. 2 at 11@12c; buckwheat at 10c. Ex-  
tracted honey is in fair demand, with abundant  
supplies and a weakening tendency is notice-  
able in the market. We quote white at 6@6 $\frac{1}{2}$ c;  
light amber at 5 $\frac{1}{2}$ @6c; dark, 5@5 $\frac{1}{2}$ c per pound;  
Southern at 52@55c per gallon. Beeswax, 29c.

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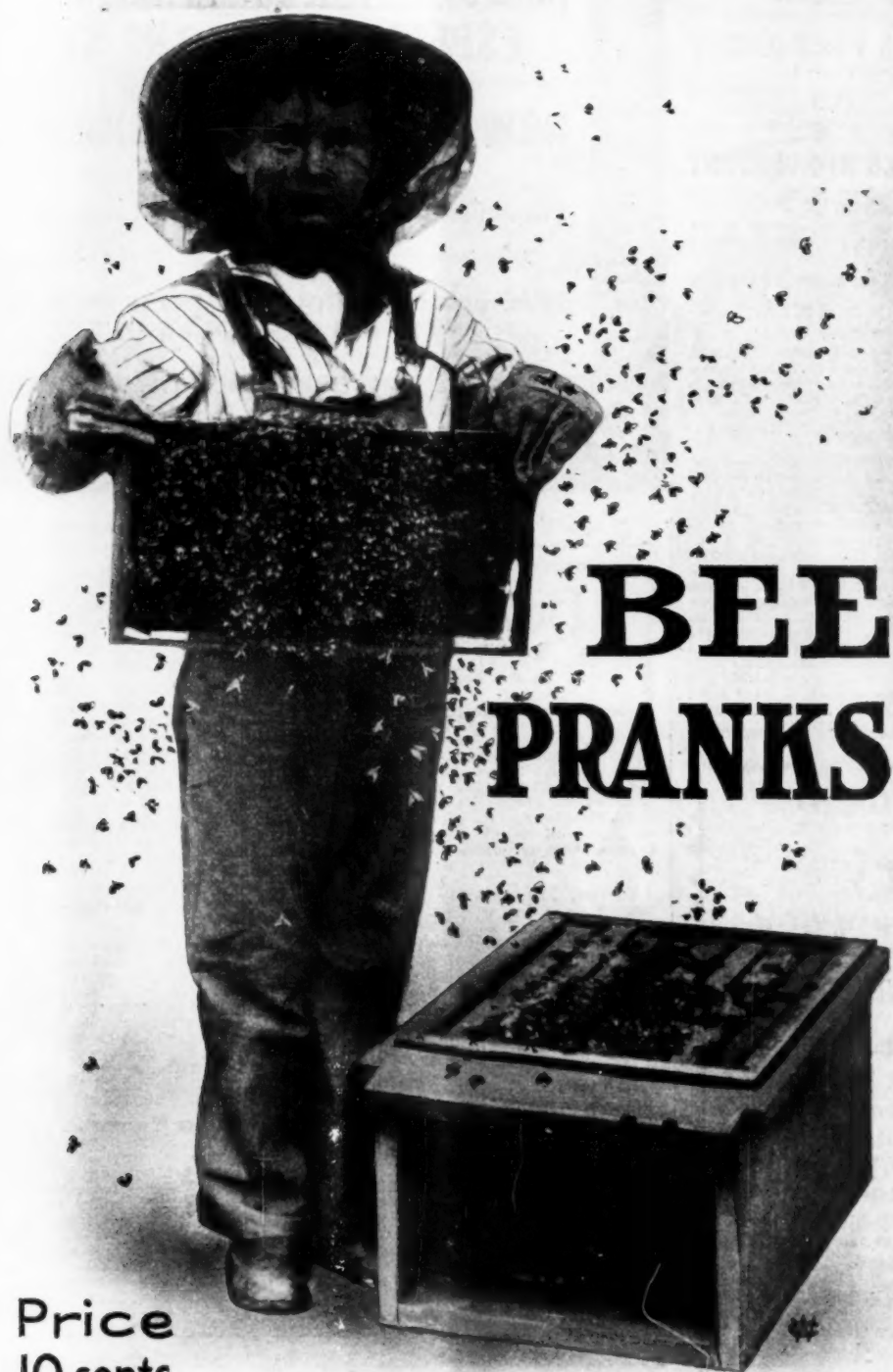
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